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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,731	08/12/2002	Francois Charette	200-1297 RLC	6580
22844	7590	03/27/2006	EXAMINER	
FORD GLOBAL TECHNOLOGIES, LLC. FAIRLANE PLAZA SOUTH, SUITE 800 330 TOWN CENTER DRIVE DEARBORN, MI 48126			CHARIOUI, MOHAMED	
			ART UNIT	PAPER NUMBER
			2857	

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/064,731	<b>Applicant(s)</b> CHARETTE ET AL.	
	<b>Examiner</b> Mohamed Charioui	<b>Art Unit</b> 2857	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 January 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-13 and 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 August 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

1. Applicant cancelled claim 3.

### **DETAILED ACTION**

#### **Claim Rejections - 35 USC § 103**

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1, 4, 5, 10 and 11** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rayment (U.S. 5,551,298) in view of Uhlig (U.S. 6,257,063) and "NVH Reduction Trends" ([http://www.sae.org/automag/nvh\\_reduction/03.htm](http://www.sae.org/automag/nvh_reduction/03.htm)).

**As per claims 1, 4, 10 and 11**, Rayment teaches imparting energy to the product to simulate an in use condition of the product (see col. 1, lines 45-58); measuring the vibration induced noise emitted from the product (see col. 3, lines 25-43 and col. 4, lines 39-48); establishing a threshold metric generating an objective metric based on the measured the vibration induced noise includes the steps of acquiring the vibration induced noise data for a defined time period (see col. 1, line 45 to col. 2, line 50); comparing the objective metric with the threshold metric; and generating feedback, the feedback including information relating to the comparison of the objective metric and the threshold metric (see col. 1, lines 61-67; col. 2, lines 41-51; and col. 3, lines 25-43).

Rayment fails to teach measuring the sound level emitted from the product.

Uhlig teaches this feature (see col. 4, lines 4-10). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate

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Uhlig's teaching into Rayment's invention because the modification would determine whether the sound level emitted from the product is within the acceptable range or not and necessary actions would be performed on the product when the sound level of the product is not within the acceptable range to assure proper functioning of the product.

Rayment fails to teach computing the objective metric based on an N10 loudness scale from the acquired sound data.

"NVH Reduction Trends" teaches this feature (see page 3, 5<sup>th</sup> paragraph). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate "NVH Reduction Trends"'s teaching into Rayment's invention, because it would provide sound data measurements N10 loudness scale. Therefore, changes in peaks of the vibration sound levels would be indicated and performance of the product would be evaluated.

**As per claim 5**, Rayment further teaches performing statistical processing based on the saved information; and preparing reports based on the saved information (see col. 1, lines 59-67).

3. **Claims 2, 6-8, 12, 13, and 15-20**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Rayment in view of Uhlig and "NVH Reduction Trends" and further in view of Hamada et al. (U.S. 2004/0015251).

**As per claims 2, 6-8, 12, 13, 15, 18 and 19**, Rayment in view of Uhlig and "NVH Reduction Trends" teach the system as stated above except for performing any repairs necessary to the product such that the noise level of the product meets acceptable noise level standards.

Hamada et al. teach this feature (see paragraphs [0017] and [0029]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate Hamada et al.'s teaching into Rayment in view of "NVH Reduction Trends"'s teaching, because it would repair the product defect. Therefore, the noise cause by the product abnormality would be reduced or eliminated and the product noise level would within the product acceptable noise level range.

**As per claims 16, 17 and 20**, Rayment further teaches saving data relating to each vehicle tested including, the objective metric, threshold metric, and any diagnosis and repair; and performing a statistical analysis on the saved data (see col. 1, lines 45-67).

***Allowable Subject Matter***

4. **Claim 14** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: none of the prior art of record teaches or suggests using a graphical user interface and standardized list of descriptors to input into the data acquisition apparatus information pertaining to the diagnosis and repair, in combination with the rest of the claim limitations.

***Response to Arguments***

5. Applicant's arguments filed 1/4/06 have been fully considered but they are not persuasive.

Applicant argues that Rayment does not teach measuring the sound level emitted from the product.

The Examiner stated in the office action that Rayment fails to teach measuring the sound level emitted from the product and incorporated Uhlig teaching to fulfill this limitation.

Applicant argues that there is no teaching suggestion to combine Rayment and Uhlig.

The Examiner disagrees with the Applicant's argument because Rayment teaches comparing the frequency at which the vibration induced noise with a set of stored data to determine the the vibration induced noise in the product (see, Rayment, col. 1, lines 45-59) and Uhlig teaches plotting the measured sound level data to quantify vibrations and noise of the product and determine if it is within the allowable range (see, Uhlig, col. 4, lines 4-10; col. 4, lines 30-40; and col. 4, lines 45-50).

Applicant argues that Uhlig is concerned with the decaying vibrational wave.

Uhlig teach that the analyzer 68 receives the decaying sound level signal from the amplifier 64 (see col. 4, lines 30-34). The Examiner maintains the rejection because Uhlig teaches measuring the sound level emitted from the product.

Applicant argues that "NVH reduction Trends" indicates that percentile statistical measures N10 and N50 are used to describe a set of noise measurement as a single value.

The Examiner sees that it is well known in the art to use N10 and N50 in the noise loudness measurement, for this reason the "NVH reduction Trends" is being used to show that the use N10 and N50 loudness scales are not novel in the art.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

***Contact information***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohamed Charioui whose telephone number is (571) 272-2213. The examiner can normally be reached Monday through Friday, from 9 am to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S Hoff can be reached on (571) 272-2216. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mohamed Charioui

3/13/06

